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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,457	05/11/2005	Markus Schubert	329864US0PCT	7023

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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ZIMMER, ANTHONY J

ART UNIT	PAPER NUMBER
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1793

NOTIFICATION DATE	DELIVERY MODE
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11/26/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/534,457	<b>Applicant(s)</b> SCHUBERT ET AL.	
	<b>Examiner</b> ANTHONY J. ZIMMER	<b>Art Unit</b> 1793	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the treated support" in the fifth line of the claim.

There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the dried support" in the fifth and sixth lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1793

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 13-20 are rejected under 35 U.S.C. 102(a or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mizobuchi (US2003/0195115).

In regard to claims 1-4, 6, 13-14, and 18-20, Mizobuchi teaches a catalyst comprising rhenium and platinum in amounts within the range of the claim (see Table 1) on a titania support. The catalyst of Mizobuchi is prepared by a process in which a rhenium compound is impregnated on the support followed by drying. Then a platinum compound is impregnated and the catalyst is dried again. See [0032]-[0035]. Subsequently, the catalyst is reduced in an atmosphere containing hydrogen and carbon monoxide at 500°C. See [0040]. Though the reduction step in Mizobuchi is carried out after both impregnations, the sequence of reduction in Mizobuchi would have a structural effect meeting the limitations as required by the claim(s) as the claim(s) do not require that the catalyst be prepared by the process specified therein. Though it is not mentioned in instant claim 1 that the platinum compound is reduced, the claim does not exclude elemental platinum, a step of reducing a platinum compound, or the structural effects implied therein. Claims 6 and 18-20 also provide a step of reduction which would reduce the platinum compound. The reducing step of Mizobuchi mentioned above also satisfies the structural implications of these claims (6 and 18-20). Thus, all of the structural limitations of the instant claims of providing a supported rhenium/platinum catalyst are considered to be met by Mizobuchi.

In regard to claims 5 and 15-17, passivation with an oxygenous gas before impregnation of the platinum compound does not imply any structural differences to the final product catalyst that would distinguish such a catalyst from that of Mizobuchi. Though such a process provides advantages to the process from an economical standpoint (see instant page 4, lines 6-9), the end product of rhenium and platinum on the support is affected by the process of Mizobuchi, even though this passivation step is not included. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. See MPEP 2113.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizobuchi, as applied to claim 1 above, in view of WO'338 (All references will be to the English language equivalent Fischer (US2003/0114719)).

In regard to claims 7-12, Mizobuchi teaches the catalyst of claim 1, but does not teach the process as required by claims 7-12. However, it would have been obvious to one of ordinary skill in the art to use the rhenium/platinum catalyst of Mizobuchi to prepare alcohols by hydrogenating carbonyl compounds because the use of

Art Unit: 1793

rhenium/platinum catalysts in this process is well known, as shown in WO'338 (see claim 1 in Fischer '719). Thus it would have been obvious to one of ordinary skill in the art to use the platinum/rhenium catalyst of Mizobuchi in such a process (the process of WO'338) in order to affect the predictable result of hydrogenating carbonyl compounds to alcohols.

WO'338 teaches carbonyl compounds required by claims 8-10, see [0030] of equivalent. WO'338 teaches liquid hydrogenation (over solid catalysts) at 50-250°C and 3-330 bar, see equivalent [0029], and starting up the reactor charged with catalyst using dilute aqueous solution of the carbonyl compound, see [0048].

### ***Response to Arguments***

Applicant's arguments and supporting declaration filed 8/26/2008 have been fully considered but they are not persuasive.

In response to applicant's argument (and supporting declaration) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the rhenium compound is reduced to metallic form) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The instant claims recite that the catalyst is "obtainable" by the process recited thereafter therefore the claims do not require said process be employed. The catalyst of Mizobuchi meets the required limitations of the claim.

Applicant argues (supported by the declaration) that the instant invention is made of metallic rhenium and the catalyst of Mizobuchi does not meet this limitation. However, it needs to be noted that even if the process steps were required by the claim, said steps do not structurally limit the catalyst as applicant asserts. The claims recite that the treated support is heated in a reductive atmosphere at from 80-600°C thereby forming a catalyst blank. This does not require that the rhenium compound is reduced to any particular extent, ie. to metallic rhenium. No time or concentration of reducing agent is given, so the extent of the reduction cannot be ascertained nor do the instant claims require metallic rhenium. Also, relatively low temperatures are encompassed by the claim (80°C for instance) that would result in slow reaction rates and little if any conversion of the rhenium compound. Thus, such a limitation (step (b)) does not distinguish the instant claims from the prior art.

Applicant argues that since the catalyst of Mizobuchi is used in a different process that it could not be expected to be successfully used for a different process. However, obviousness only requires a reasonable expectation of success. Since the use of platinum/rhenium catalysts in hydrogenation processes is well established (as is shown in WO'338), one of ordinary skill in the art would have a reasonable expectation of success using the similar platinum/rhenium catalyst of Mizobuchi in such a process. See MPEP 2143.02.

Applicant argues that the instant invention produces unexpected results. However any unexpected results shown are not commensurate in scope with the catalyst as instantly claimed because the process of making the catalyst, used in

Art Unit: 1793

applicant's argument to establish a distinction, is not required by the product claims.

Also, even if the process steps were required by the claim, said steps do not structurally limit the instantly claimed catalyst.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. ZIMMER whose telephone number is (571)270-3591. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ajz

/Steven Bos/  
Primary Examiner, Art Unit 1793